

Listing of Claims:

1. (Currently Amended) Method A method for tightening a screw joint to a desired target torque level ~~by means of using~~ an impulse wrench having an impulse unit with a motor driven inertia drive member, and a programmable control unit arranged to control 5 ~~the~~ a power supply to the impulse wrench, according to the following steps said method comprising:

starting a screw joint tightening process at a reduced power supply to the impulse wrench,

10 ascertaining ~~the~~ an angular displacement and ~~a~~ retardation magnitude of the inertia drive member during each delivered impulse,

calculating ~~the~~ an instantaneous torque magnitude and ~~a~~ torque growth during a number of delivered impulses,

15 increasing after ~~the~~ a very first delivered impulse the power supply to the impulse wrench in response to the calculated torque growth,

reducing the power supply to the impulse wrench in response to the instantaneous torque magnitude and to the calculated torque growth during each impulse ~~after~~ as the instantaneous 20 torque magnitude ~~has reached~~ reaches a predetermined part percentage of the desired target torque level, and

interrupting the power supply to the impulse wrench as the target torque level ~~has been~~ is reached.

2. (Currently Amended) Method The method according to
claim 1, wherein the power supply is increased after the very
first delivered impulse to an optimum magnitude determined by the
calculated relative torque growth and the an installed torque
5 magnitude during the very first delivered impulse in relation to
the target torque level.

3. (Currently Amended) Power A power wrench system for
tightening a screw joint to a desired target torque level,
comprising:

5 a torque impulse wrench,
a programmable control unit, and
a power supply connected to the impulse wrench and governed
by the control unit,

10 wherein the impulse wrench comprises an impulse unit with a
motor driven inertia drive member, and an angle sensor connected
to said inertia drive member to detect the an angular movement of
said inertia drive member, and

wherein:

15 said power supply is controlled to supply the impulse
wrench with a reduced power until the a very first impulse is
delivered to the screw joint being worked,

said control unit is arranged to receive signals from
the angle sensor and to determine the an angular displacement and

20 the a retardation magnitude of the inertia drive member during each delivered impulse, and to calculate the a delivered torque as well as the a torque growth per angle increment during each impulse, and

25 said control unit is arranged to increase the power supply to the impulse wrench after the very first impulse has been delivered, to reduce the power supply to the impulse wrench as the an instantaneous torque magnitude ~~has reached~~ reaches a predetermined part percentage of the target torque level, and to interrupt the power supply to the impulse wrench as the target torque level ~~has been~~ is reached.

5 4. (Currently Amended) Power The power wrench system according to claim 3, wherein the impulse wrench is pneumatically powered, and said power supply comprises a valve connected to the control unit and arranged to vary the a pressure air supply to the impulse wrench between zero and a full power flow as determined by the control unit.

Claim 5 (Canceled).